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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,356	08/19/2004	Gerald J Julien	Ice US1	5987
7590 03/31/2006				
J. Michael Neary 53939 Pine Grove Road LaPine, OR 97739		EXAMINER WALTERS, JOHN DANIEL		
		ART UNIT 3618 PAPER NUMBER		
DATE MAILED: 03/31/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/505,356	JULIEN, GERALD J	
	<b>Examiner</b>	<b>Art Unit</b>	
	John D. Walters	3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

Claims 1 – 12 have been examined.

#### ***Information Disclosure Statement***

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

#### ***Drawings***

Figures 1 - 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Applicant states that the physical structure shown in said figures is "...conventional and are well known to those skilled in the art." (page 5, line 16)

The drawings are objected to because:

- while referenced in the specification, figures 9 and 10 are not included within the supplied drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

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- reference number 50 is not shown within the figures;
- reference number 52 is not shown within the figures;
- reference number 56 is not shown within the figures;
- reference number 58 is not shown within the figures.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The disclosure is objected to because of the following informalities:

- the "Description of the Drawings" section does not include descriptions of figures 11 – 14.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's disclosure. Applicant's disclosure states that the following physical structures are "...conventional and are well known to those skilled in the art":

- a blade body having an ice contacting bottom edge (Fig. 1, item 30);
- said blade body having a structure for engaging a blade holder (Fig. 2, item 34);
- said bottom edge having opposed corners that are sharpened (Fig. 3);
- said blade holder being connected to a boot (Fig. 1).

Applicant has chosen "Type 60 Nitinol" as the material of choice for his invention. Applicant list many physical properties for "Type 60 Nitinol" within claims 1 – 4. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to chose from a variety of suitable materials for the manufacture of said blades balancing such diverse considerations as physical properties of said material, price of said material, availability of said material, finished goods price point, etc. One of ordinary skill in the art would assign relative importance to each of said considerations and make a selection from known materials based on that individual's priorities.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tschida et al. (5,287,657). Tschida discloses a skate sharpening machine and method comprising:

- grinding a running edge (abstract);
- said grinding producing a hollow profile with sharp edges (column 1, line 56);
- making grinding passes of about 0.002" – 0.004" (column 12, lines 25 – 34).

While Tschida does not specifically disclose a grinding wheel material, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to make use of any commercially available grind wheel material with the proper hardness in relation to the material to be ground.

Claims 6 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Fabrication of Nitinol Materials and Components" taken from "Proceedings of the International Conference of Shape Memory and Superelastic Technologies, Kunming, China, P.285-292 (2001)" by Ming H. Wu.

The manufacturing processes listed within said claims, i.e. cutting, heat treating, grinding, and annealing, are all old and well known in the art. The specifics on times and temperatures which result in specific hardness values are known for various materials. In relation to Nitinol, Wu discloses:

- hot working at temperatures between 850°C and 950°C (page 2, paragraph 4);
- annealing at temperatures between 600°C and 800°C (page 2, paragraph 5);
- heat treating at temperatures between 600°C and 900°C (page 3, paragraph 3);

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- aging at a temperature around 400°C (page 3, paragraph 3).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to make use of old and well known manufacturing processes at the temperatures disclosed by Wu as these standard processes are well established and workable on current machinery.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Wood (5,776,214) discloses a method for making abrasive grain and abrasive articles;
- Carpenter et al. (6,149,742) disclose a process for conditioning shape memory alloys;
- Buehler et al. (3,174,851) disclose nickel-base alloys.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John D. Walters whose telephone number is (571) 272-8269. The examiner can normally be reached on Monday - Friday, 8am - 5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John D. Walters  
Examiner  
Art Unit 3618

JDW



CHRISTOPHER P. ELLIS  
SUPERVISORY PATENT EXAMINER  
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